03050109-020

(South Saluda River)

General Description

Watershed 03050109-020 is located in Pickens and Greenville Counties and consists primarily of the ***South Saluda River*** and its tributaries. The watershed occupies 77,990 acres of the Blue Ridge region of South Carolina. The predominant soil types consist of an association of the Ashe-Hayesville series. The erodibility of the soil (K) averages 0.22 and the slope of the terrain averages 25%, with a range of 2-80%. Land use/land cover in the watershed includes: 94.6% forested land, 4.0% agricultural land, 0.7% water, 0.6% urban land, and 0.1% forested wetland (swamp).

The South Saluda River flows through Table Rock Reservoir and is joined by several tributaries before merging downstream with the North Saluda River. The headwaters of the South Saluda River accept drainage from Laurel Creek (Big Spring Creek, Rock Laurel Branch) and Flat Rock Creek before entering Table Rock Reservoir. Slicking Creek (Little Table Rock Creek, Chestnut Cove) and Galloway Branch flow directly into the reservoir. The South Saluda River and its tributaries, from the headwaters through and including Table Rock Reservoir, are classified ORW. Matthews Creek (Julian Creek) enters the South Saluda River below the reservoir followed by West Fork (Wattacoo Creek, Robinson Branch), Tall Pines Lakes, the Oolenoy River watershed, and Spain Creek. Julian Creek and Matthews Creek, from their headwaters to the end of State land in the Mountain Bridge area, are classified ORW. The South Saluda River is classified TPGT from the Table Rock Reservoir dam to the crossing of S.C. Hwy 8.

The most predominant tributary to the South Saluda River is the Middle Saluda River, which originates in Caesars Head State Park and accepts drainage from Coldspring Branch, Rock Branch, Buck Hollow, and Head Foremost Creek. Gap Creek (Falls Creek, Trammell Lake, Friddle Lake, Bluff Branch, Tankersly Branch, Peters Branch, Cherry Branch) enters the Middle Saluda River next followed by Oil Camp Creek, Jane Branch, Devils Fork Creek, Cox Creek (Grissom Branch), Mill Creek, Wolf Creek, and Spout Spring Branch. Coldspring Branch and the Middle Saluda River, from their headwaters to the end of State land, are classified ORW. Oil Camp Creek is classified ORW from its headwaters to the end of State land, and the remainder of the stream is classified TN. All of Head Foremost Creek is classified ORW, and Falls Creek is ORW from its headwaters to Lake Trammell. Lake Trammell and the remainder of Falls Creek are classified TN. The entire reach of Gap Creek, together with Rock Branch, and Buck Hollow are classified TN, and the Middle Saluda River is classified TN from the end of State land to Oil Camp Creek.

Peters Creek and Carpenter Creek flow into the South Saluda River downstream of the confluence with the Middle Saluda River. There are a total of 185.9 stream miles and 568.7 acres of lake waters in this watershed. With the exception of the ORW, TN, and TGPT streams mentioned above, the remaining streams are classified FW. Other natural resource areas in this watershed include Table Rock State Park, Caesars Head State Park, and Jones Gap State Park. A five-mile segment of the Middle Saluda River is protected under the South Carolina Scenic Rivers Program. Table Rock Reservoir is used for municipal purposes only by the Greenville Water Commission.

Surface Water Quality

Station #	Type	Class	Description
S-291	P/W	ORW	TABLE ROCK RESERVOIR AT WATER INTAKE
S-320	P/W	FW	SOUTH SALUDA RIVER AT S-39-113 (TABLE ROCK ROAD)
S-086	BIO	TN	MATTHEWS CREEK AT S-23-90
S-771	BIO	FW	SOUTH SALUDA RIVER AT SC ROUTE 11
S-087	S/W	FW	SOUTH SALUDA RIVER AT S-23-101
S-076	BIO	ORW	MIDDLE SALUDA RIVER AT JONES GAP STATE PARK
S-077	W	FW	MIDDLE SALUDA RIVER AT S-23-41
S-317	BIO	FW	OIL CAMP CREEK AT S-23-097
S-252	S/W	FW	MIDDLE SALUDA RIVER AT SC 288, 2.3 MILES WSW SLATER
S-299	W/INT	FW	SOUTH SALUDA RIVER AT SC 186

Table Rock Reservoir (S-291) - Aquatic life uses are fully supported; however, there is a significant increasing trend in total phosphorus concentration. There is a significant increasing trend in pH. Recreational uses are fully supported and a significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter.

South Saluda River - There are four SCDHEC monitoring sites along the South Saluda River. At the upstream site ***(S-320)***, aquatic life and recreational uses are fully supported; however, there is a significant increasing trend in five-day biochemical oxygen demand. Further downstream ***(S-771)***, aquatic life uses are fully supported based on macroinvertebrate community data. Aquatic life uses are also fully supported at the next site downstream ***(S-087)***. Prior to 2001, this was a secondary monitoring station and sampling was intentionally biased towards periods with potentially low dissolved oxygen concentrations. There is a significant increasing trend in pH. Recreational uses are partially supported at this site due to fecal coliform bacteria excursions. At the furthest downstream site ***(S-299)***, aquatic life uses are again fully supported. There is a significant increasing trend in pH at this site. A significant decreasing trend in turbidity suggests improving conditions for this parameter. Recreational uses are partially supported at this site due to fecal coliform bacteria excursions.

Matthews Creek (S-086) - Aquatic life uses are fully supported based on macroinvertebrate data.

Middle Saluda River - There are three SCDHEC monitoring sites along the Middle Saluda River. At the upstream site ***(S-076)***, aquatic life uses are fully supported based on macroinvertebrate community data. Aquatic life uses are not supported at the midstream site ***(S-077)*** due to occurrences of copper in excess of the aquatic life acute standards. There are also significant increasing trends in five-day biochemical oxygen demand and pH. Recreational uses are fully supported at this site. Aquatic life uses are fully supported at the downstream site ***(S-252)*.** Prior to 2001, this was a secondary monitoring station and sampling was intentionally biased towards periods with potentially low dissolved oxygen concentrations. There is a significant increasing trend in pH. A significant decreasing trend in turbidity suggests improving conditions for this parameter. Recreational uses are fully supported at this site.

Oil Camp Creek (S-317) - Aquatic life uses are fully supported based on macroinvertebrate data.

Natural Swimming Areas

FACILITY NAME *RECEIVING STREAM*	*PERMIT #* *STATUS*
CAMP GREENVILLE MIDDLE SALUDA RIVER TRIBUTARY	23-N11 ACTIVE
PALMETTO BIBLE CAMP FRIDDLE LAKE/FALLS CREEK	23-N22 ACTIVE
CAMP WABAK GAP CREEK	23-N07 ACTIVE
AWANITA VALLEY MIDDLE SALUDA RIVER	23-N06 ACTIVE

Groundwater Quality

Well #	Class	Aquifer	Location
AMB-108	GB	PIEDMONT BEDROCK	CAESAR'S HEAD

NPDES Program

Active NPDES Facilities

RECEIVING STREAM *FACILITY NAME* *PERMITTED FLOW @ PIPE (MGD)*	*NPDES#* *TYPE* *COMMENT*
SOUTH SALUDA RIVER MILLIKEN & CO./GAYLEY PLANT PIPE #: 001 FLOW: 1.792	SC0003191 MAJOR INDUSTRIAL
MATTHEWS CREEK ASBURY HILLS CAMP & RETREAT PIPE #: 001 FLOW: 0.015 PIPE #: 001 FLOW: 0.04	SC0029742 MINOR DOMESTIC PROPOSED

Nonpoint Source Management Program

Mining Activities

MINING COMPANY *MINE NAME*	*PERMIT #* *MINERAL*
HENDRIX SAND COMPANY HENDRIX MINE INSTREAM DREDGING (SOUTH SALUDA RIVER)	0717-77 SAND
B & B SAND MARIETTA MINE #1	0640-45 SAND

Water Quantity

WATER USER *WATERBODY*	*REGULATED CAPACITY (MGD)* *PUMPING CAPACITY (MGD)*

GREENVILLE WATER SYSTEM (M)	30.0
TABLE ROCK RESERVOIR	45.0

Growth Potential

There is a low potential for development or intensive agriculture in this mountainous watershed, which is predominately protected as park and forest by Caesars Head and Table Rock State Parks. The primary uses of the watershed are recreation and preservation; however, some relatively small clear and selective cut timber harvesting activities occur on the private land holdings. U.S. 276 crosses the watershed, but very little development occurs along the thoroughfare to North Carolina.

Watershed Protection and Restoration Strategies

Special Projects

Assessing Water Quality in the Saluda River Watershed

Furman University has recently completed a three-year project that was to determine the sources of impairments on several tributaries and reaches of the Saluda River. These impairments include high fecal coliform counts detected in the watersheds of the **Middle Saluda River,** the **South Saluda River**, a small tributary to the Saluda River north of the Town of Pelzer, Broad Mouth Creek, Big Brushy Creek, the Bush River, Scotts Creek, and the Little River; high phosphorous concentrations found in the Bush River; low dissolved oxygen levels in Coronaca Creek; and an impaired macroinvertebrate community in Broad Mouth Creek. A stream sampling program was conducted in 2001, 2002, and 2003 with 182 sites sampled within the ten impaired areas. Each site was sampled from 3 to 7 times for water chemistry and for total coliform, *E. coli*, and heterotrophic bacterial counts. In addition, selected sites were sampled for fish abundance and diversity and for macroinvertebrate abundance and diversity.